Plant Science, 68 (1990) 269–270
Elsevier Scientific Publishers Ireland Ltd.

CONTENTS

Volume 68 (1990)

PHYSIOLOGY AND BIOCHEMISTRY

Effect of methionine sulphoximine on vacuolar storage of amino acids in *Lemna minor* L.
by J.A. Goodchild and A.P. Sims (Norwich, U.K.) 1–7

Diversity of cucumber chitinase isoforms and characterization of one seed basic chitinase with lysozyme activity
by N. Majeau, J. Trudel and A. Asselin (Toronto and Québec, Canada) 9–16

Effects of abscisic acid and xanthoxin on elongation and gravitropism in primary roots of *Zea mays*
by J.S. Lee, K-H. Hasenstein, T.J. Mulkey, R.L. Yang and M.L. Evans (Seoul, Korea, Lafayette, LA, Terre Haute, IN and Columbus, OH) 17–26

Effect of natural and accelerated aging on the hydroperoxide metabolism of soybean embryonic axes
by S. Puntarulo and A. Boveris (Buenos Aires, Argentina) 27–32

Differential auxin sensitivity of proton translocation by plasma membrane H^+-ATPase from tobacco leaves
by V. Santoni, G. Vansuyt and M. Rossignol (Dijon, France) 33–38

The effect of glyceollin on proton leakage in *Phytophthora megasperma* f. sp. *glycinea* plasma membrane and red beet tonoplast vesicles
by J.L. Giannini, J.S. Holt and D.P. Briskin (Urbana, IL) 39–45

Peroxidase activity changes and lignin deposition during the senescence process in *Citrus* stigmas and styles
by F.R. Tadeo and E. Primo-Millo (Valencia, Spain) 47–56

Effect of 2-(3,4-dichlorophenoxy)triethylamine (DCPTA) on the growth and development of sugarbeet
by J.H. Keithly, H. Yokoyama and H.W. Gausman (Pasadena, CA and Lubbock, TX) 57–64

Gabaculine inhibition of chlorophyll synthesis in light and darkness in intact barley (*Hordeum vulgare*) seedlings
by J. Walmsley and H. Adamson (North Ryde, Australia) 65–70

Distinctive stability of the reduced and oxidized forms of high-potential cytochrome *b*-559 in photosystem II particles
by J.M. Ortega, M. Hervás and M. Losada (Seville, Spain) 71–75

Zinc suppresses sirodesmin PL toxicity and protects *Brassica napus* plants against the blackleg disease caused by *Leptosphaeria maculans*
by T. Rouxel, A. Kollmann and J-F. Bousquet (Versailles, France) 77–86

High-fluence rate responses in the light-oriented chloroplast movement in *Adiantum* protonemata
by H. Yatsuhashi and M. Wada (Miyazaki and Tokyo, Japan) 87–94

CELL AND TISSUE STUDIES IN VITRO

Seed vernalized interspecific hybrids through in vitro ovule culture in *Brassica*
by M.M. Hossain, H. Inden and T. Asahira (Kyoto, Japan) 95–102

The historical development of the regenerative tissue derived from cultured immature embryos of wheat (*Triticum aestivum* L.)
by D.G. He, Y.M. Yang, J. Bertram and K.J. Scott (St. Lucia, Australia) 103–111

Direct shoot bud formation from leaf explants of seedling and mature mangosteen (*Garcinia mangostana* L.) trees
by H.K-L. Goh, A.N. Rao and C-S. Loh (King Ridge, Republic of Singapore) 113–121

GENERAL

Reactions to a *Verticillium dahliae* phytotoxin in tissue cultures derived from susceptible and tolerant potato
by A. Nachmias, J. Orenstein, M. Tal and M. Goren (Beer-Sheva, Israel) 123–130

REVIEW ARTICLE

Control of protein formation in chloroplasts
by A. Boschetti, E. Breidenbach and R. Blattler (Bern, Switzerland) 131–149

PHYSIOLOGY AND BIOCHEMISTRY

Studies on a non-fixing mutant of pea (*Pisum sativum* L.). I. Phenotypical description and bacteroid activity
by J.G. Postma, D. Jager, E. Jacobsen and W.J. Feenstra (Haren, The Netherlands) 151–161

Developmental gene expression in conifer embryogenesis and germination. I. Seed proteins and protein body composition of mature embryo and the megagametophyte of white spruce (*Picea glauca* [Moench] Voss.)
by S. Misra and M.J. Green (Victoria, Canada) 163–173

Characterization of a high molecular mass cytokinin-like compound extracted from wheat germ (*Triticum vulgare* L.)
by M.-P. Papet, B. Fournet, H. Monsigny and F. Delmotte (Orleans, France) 175–182

Spermidine inhibits K^+ uptake without interfering with the basal activity of plasma membrane proton pump
by Z. Varanini, S. Grego, M. Gabriella De Biasi and M. De Agazio (Viterbo and Rome, Italy) .....

Effects of acclimation to low temperature and to water stress on photosynthesis and on physical and chemical properties of lipids from thylakoids of cucumber and cotton 183–188
by C.S. Pike, H.A. Norman, E.C. Kemmerer, D.R. Wessner, C.M. Greenberg, L.J. Kaplan, N.M. Brodsky and A.E. Ellis (Lancaster, PA and Beltsville, MD) 189–196

Immobilized sugars as abiotic inducers of D-glycanohydrolases in plant cells
by Y. Lienart, C. Gautier and H. Driguez (Grenoble, France) 197–202

GENETICS AND MOLECULAR BIOLOGY

Occurrence and characterization of a dispersed *Mbo*I repeat family in frenchbean (*Phaseolus vulgaris*) seedling DNA
by S.A. Tamhankar, V.S. Gupta, K.S. Joshi and P.K. Ranjekar (Pune, India) 203–211

Organization of the rice chloroplast *psa*A-*psa*B-*rps*14 gene and the presence of sequence heterogeneity in this gene cluster
by S.-C.G. Chen, M.-C. Cheng, J. Chen and L.-Y. Hwang (Taiwan, Republic of China) 213–221

A novel AT-rich tandem repeat of *Brassica nigra*
by V. Gupta, V. Jagannathan and M.S. Lakshmikumaran (New Delhi, India) 223–229

CELL AND TISSUE STUDIES IN VITRO

Somatic embryogenesis and plant regeneration from hypocotyl protoplasts of *Brassica juncea* (L.) Czern & Coss
by E.-C. Pua (Singapore, Republic of Singapore) 231–238

Effect of gibberellic acid and indole-3-acetic acid on growth and differentiation of cultured ear inflorescences of maize (*Zea mays* L.)
by V.R. Bommineni and R.I. Greyson (Ontario, Canada) 239–247

Changes in microtubular organization mark the transition to organized growth during organogenesis in *Petunia hybrida*
by J.A. Traas, J.P. Renaudin and B. Teyssendier De La Serve (Dijon, France and Wageningen, The Netherlands) 249–256

GENERAL

Characterization of mutants of *Ceratopteris richardii* selected on aluminum ($Al_2(SO_4)_3$-Na_2EDTA)
by S.R. Wright, L.G. Hickok and T.R. Warne (Knoxville and Johnson City, TN) 257–262

Subject Index Volume 68 263–265

Author Index Volume 68 267–268

Contents Volume 68 269–270